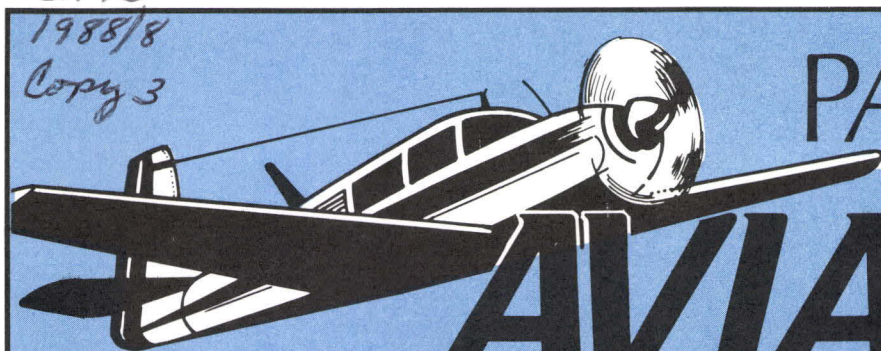


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PALMETTO

AVIATION

Volume 40, Number 6

Published by the S.C. Aeronautics Commission

August, 1988

Aircraft Registration Law Repealed

New ruling affects all aircraft owners

On June 2, 1988, Governor Carroll Campbell alleviated at least one problem aircraft owner's had on their minds — aircraft registration.

In past years, aircraft owners had to register their planes with the South Carolina Aeronautics Commission, with fees based on the weight and the number of engines.

The registration money collected was then deposited into South Carolina's General Fund.

About 1,400 aircraft owners are effected by this new act repealing the original registration law.

Initially, the registration program provided a system for the state to accurately assess the num-

ber and kind of aircraft in the state and to assure that aircraft owners also had adequate liability protection, according to Alan Alexander, assistant director of the state Aeronautics Commission.

Also, the registration program assisted state personnel in planning for airport development with statistical information in geographical location of aircraft. Unfortunately, this same program through the years has been utilized by some county auditors as a basis for tax information, said Alexander.

A major concern to the Aeronautics Commission was the lack of an effective means of enforcement of the registration law.

As the years progressed, said Alexander, "People failed to register their aircraft...We recognized then that it was not effective, so we asked the legislature to do something about it."

Alexander also stressed the importance of insurance, "The requirement for insurance is still in effect."

However, he said, you do not need to register with the state but you must still maintain your federal registration.

In 1987, registration fees were \$5 for single engine aircraft; \$10 for twin-engine aircraft under 6,000 lbs. take-off weight and all other aircraft \$20.00.

Testy Aviators Discuss Airspace at FAA Meeting



People interested in the Charlotte TCA heard comments from FAA officials and airport personnel

About 200 people interested in terminal control areas gathered at the Air National Guard Armory to discuss the TCA surrounding Charlotte Douglas Airport.

The angry and sometimes hostile aviators attended the Federal Aviation Administration's Informal Airspace meeting in Charlotte, N.C. on July 12.

One homebuilt owner said, "I'm too emotional to make a presentation. It's an emotional issue."

FAA Southern Region representative Wally Watson moderated the three-hour meeting beginning with reasons for having a TCA at all.

"Mainly, we developed the TCA to reduce mid-air collisions in highly congested air traffic areas, like

See Charlotte TCA, Page 6



PALMETTO AVIATION is an official publication of the South Carolina Aeronautics Commission. It is designed to inform members of the aviation community, and others interested in aviation, of local developments in aviation and aviation facilities, and to keep readers abreast of national and international trends in aviation.

The Aeronautics Commission is a state agency created in 1935 by the South Carolina General Assembly to foster and promote air commerce in the state.

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Commissioners Approve Over \$230,000 in Airport Grants

Over \$230,000 in airport improvement and development grants were approved at the state Aeronautics Commission meeting held in Florence.

Commissioners approved the following projects for funding during their June meeting:

- **Conway-Horry County Airport** — \$ 62,590.50 to extend and widen the runway to 4400 ft., to expand parking for aircraft, to install medium intensity runway lights and a new approach system. In addition, \$ 6,607.50 was approved to rehabilitate southwest aircraft parking.

- **Florence Regional Airport** — \$ 11,625.00 for terminal improvements to the passenger holding areas.

- **Grand Strand Airport** — \$ 62,943.26 to construct a connector taxiway for a full parallel taxiway and to rehabilitate runway. Also approved was \$ 12,714.95 to rehabilitate the taxiways and \$ 9,168.95 to install runway lights.

- **Greenwood County Airport** — \$ 13,000.00 to repair cracked sealing of runway.

- **Myrtle Beach Jetport** — \$ 26,738.90 to construct an expanded aircraft parking apron.

- **Williamsburg County Airport** — \$ 25,000.00 for emergency repair of runway to remove and re-

place damaged pavement and clear trees damaged when a B-26 landed in an effort to fight forest fires in the vicinity.

The state funds will be matched with \$ 3,240,669.02 in FAA grants for the approved projects. The total for projects including state, local and FAA money amounts to \$ 3,614,151.00.

Garland P. Castleberry, the FAA director for the Southern Region, Sam Austin, manager of FAA Atlanta Airports District and Steve Brill, manager of the FAA Southern Airports Division answered questions regarding aviation during the short listening session held following the commission meeting.

Castelberry said with the continued phenomenal growth of aviation, airports would reach "saturation points" in the very near future.

Castelberry also said he sees Florence Regional Airport as a potential reliever airport which would help relieve surrounding airports of congestion.

The Florence City-County Airport Commission and Rocky Gannon, executive director of Florence Regional Airport, hosted the meeting at the Florence Country Club.

During the luncheon, Commissioner Charles Appleby presented the FAA dignitaries with keys to the city of Florence.

Mark it on your calendar!

The 11th Annual South Carolina Airports Conference is scheduled for November 15, 16, 17 and 18 at the Marriott Resort Hotel at Hilton Head Island.

More information will be coming as the conference nears.

South Carolina Aeronautics Commission Offices are at Columbia Metropolitan Airport. Mailing Address: Post Office Drawer 1987, Columbia, South Carolina, 29202. Phone: (803) 739-5400.

Airport Developmental Coordinator Named to SCAC

Jones Herring, 35, a native of Ware Shoals, has been named to the state Aeronautics Commission as Airport Developmental Coordinator.

His duties include assisting airports and counties in securing grants and monies for airport development and improvements.

"I'm looking forward to the challenges of my new position at the state Aeronautics Commission to promote economic development, in relation to airports, in South Carolina," said Herring.

"My previous position with

the State Budget Division of the Budget and Control Board taught me all about funding procedures and the process of appropriating state dollars, in an effort to secure funds for economic development."

Herring, a '75 graduate of The Citadel, is married to the former-Sherry Fox and has one child, Chad, 3. They reside in Columbia.

Herring worked at the State Budget and Control Board from 1982 to 1988 as a state budget analyst. Before that, he was employed as a financial examiner with the State Insurance Commission.

Breakfast Club Meetings Still Going Strong

Breakfast Club members are ending the summer on a high note and anticipating an exciting autumn with plans for many activities in September and October.

This month, Breakfast Club members will travel from Berkeley County to Marion, NC and then on to Walterboro County Airport for their regular club meetings.

According to Bill and Anne Hawkins, officers of the club which is in its fiftieth year, attendance is up with nearly 100 people coming to each club meeting.

"We had about 130 people served in the Camden Hangar for our July 3 meeting and it was raining, too," said Anne. "We would have had more if not for the rain."

"We have about 46 aircraft coming each time now," said Bill, "the visibility was excellent and we had pleasant temperatures for the July meeting, even though it was raining."

Other events planned for the Breakfast Club include a weekend affair at Jekyll Island, GA.

Members are encouraged to fly-in on Friday and stay for the weekend.

Special family rates at Villas-by-the-Sea will be set aside for the Breakfast Club, according to Anne.

Call Sheila Duncan at the resort at 1-800-841-6262 to place your reservations for one, two or three bedroom villas at special rates.

Another event to put on your calendar is the annual Antique Fly-In scheduled for Sept. 30, October 1-2 at Woodward Field.

Bill estimated that 500 transient aircraft participated in the fly-in at the airport for the three-day event last year.

"I'm sure that if the weather is good, that number or better will be there this year," he said.

In addition, members and historians alike will be pleased to know that a television station is putting together a video tape documentary on the Breakfast Club.

Bill Hawkins suggests you stay tuned for more information on how to order your video tape.



Aviation Calendar

July 29-August 5

EAA

Oshkosh '88 Convention

August 7

Breakfast Club

Berkeley County

Moncks Corner

August 14

Breakfast Club- Special
Marion, N.C.

August 21

Breakfast Club

Walterboro Airport

September 11

Breakfast Club

Special Weekend Meeting
Jekyll Island Airport, GA

September 18

Breakfast Club

Newberry County Airport

Sept. 30, October 1-2

Antique Fly-In
Woodward Field
Camden Airport

October 6-8

AOPA Nat'l Convention
Nashville, TN

October 9

Chester Air Show

Kim Person

Wayne Parrish

Chester

October 21-23

AOPA Flight Instructor
Refresher Course
Columbia

November 15-18

SC Airports Conference
Marriott Resort
Hilton Head Island

He's Happy with Helio's

Larry Montgomery is a man who is having a love affair. But it's not with a woman. It's with the C/STOL Helio Courier.

"I love it. It's a very gentle aircraft," said the bespectacled Montgomery in Spartanburg Downtown Airport.

The avowed Helio lover was once a factory demo pilot in the mid-sixties and flew one transporting missionaries in South America.

"I used to fly a Helio Courier when I was working for the Wycliffe Bible Translators flying Bibles to Peru in the 1950's."

According to Montgomery, the helio courier was designed to combat the high mortality rate of pilots in World War II. It was discovered that many pilots lost their lives not out of dog fights, but as a result of the poor design and high impact speeds of the aircraft then in use.

A government study committee concluded that if landing speeds of aircraft could be dramatically reduced and the cockpits reinforced with roll-bar construction, more lives would be spared.

One member of the research committee, Dr. Otto Kopen, an engineer with MIT, built an experimental aircraft from available parts of Piper aircraft in 1947.

The aircraft Dr. Kopen designed a geared down engine and a huge propeller with Fowler-type flaps and slats.

Dr. Kopen debuted the aircraft in 1949 with its initial test flight

from a tennis court. The aircraft, according to information from Montgomery, flew under complete control at 30 mph.

Mid-State Manufacturing in Pittsburgh, Kansas began constructing the planes with flight testing in a near-by corn field.

Soon after, Mid-State was bought by the Helio Aircraft Corporation and then in 1969, General Aircraft Corporation in Bedford, Mass., bought Helio.

Today there are two places in the United State where owners can go for maintenance help for Helios. One, is Pittsburgh, Kansas and the other is with Larmont Aviation International in Spartanburg.

Montgomery admits that Helios are not for everyone, "They're a little different to fly, they maneuver differently for one thing."

One experienced pilot said of the Helio, "This is an unconventional aircraft, nothing in this plane is conventional."

"It's the best airplane for visibility, it's even better than a helicopter because it doesn't shake as much," said the Spartanburg resident.

The tail-wheeled short take-off and landing Helio has cantilever wings that let you fly virtually anywhere. According to statistical information, the plane cruises at speeds up to 160 mph and is maneuverable at speeds as low as 30 mph and is virtually stall-proof.

The plane also is fitted with



Larry Montgomery demonstrates the wing flaps of his Helio Courier.

combination trailing-edge slotted flaps with leading-edge automatic slats. These features double the wing lift for takeoff and landing, and for slow speed flight.

Another feature Montgomery pointed out was the complete elimination of stall-spin risks. The plane also has interceptors for slow-speed lateral control which act as spoilers. Some have electrically operated ultra high lift slotted flaps.

Montgomery demonstrated the Helio Courier recently at the Spartanburg Airport. One maneuver was a canyon turn which he described, "as a zero radius turn with very little G's."

He also demonstrated how the Helio could land safely in a small area by nearly landing on the runway numbers by flying slow, applying the specially designed brakes.

Montgomery has loved this safe, unconventional aircraft for years. And will continue to promote its conventional uses to farmers, law enforcement officials, photographers and others who don't have a lot of room to take-off and land. But who knows, maybe they'll fall in love with it too.



Larry Montgomery in front of the control panel of a Helio Courier, a controlled short take off and landing aircraft.

The Civil Air Patrol

S.C. Wing Attends Encampment at Robins AFB in Georgia



The South Carolina Wing of the CAP held their summer encampment last month at Robins Air Force Base, GA.

Any CAP member who wants to attend can, but those most encouraged to attend are cadets who have never been to an encampment.

An encampment is required if a cadet wants to receive the Mitchell Award, given for completing the first seven achievements half-way throughout the cadet program.

Sixty-seven cadets and 10 senior members of the CAP attended the week-long encampment consisting of 5 a.m. to 10 p.m. days with various activities held in-between reveille and lights-out.

The encampment began on July 3, at the SC Wing Headquarters in Columbia. From there, they traveled by Air Force buses to Robins AFB where it was "extremely hot and humid," according to Amanda Anderson, Lt. Col., CAP director of Cadet Programs.

The first assignment for the cadets was to unpack and ready their rooms for inspections.

On Monday, July 4, they had canoe races, a picnic and attended an Air Force Reserve Band concert with fireworks.

On Tuesday, they were welcomed by Col. Billy G. Edenfield Base Commander of Robins AFB, then, attended a briefing by base personnel on the mission of Robins Air Force Base. The base, which is located near Warner Robins, is an Air Force logistics command base.

Following the presentation, cadets had an Air Force Reserve mission briefing and an aerospace doctrine meeting.

Cadets were then treated to tours of base operations, control tower, weather radar control and the fire crash station.

On Wednesday cadets flew on a C-141 and a KC-135, for orientation flights and watched as aircraft were being refueled in flight.

Also, cadets visited the Robins Museum of Aviation, where they were exposed to the historical side of aeronautics.

Highlights for cadets included being drilled by one of the Air Force Honor Guard members.

On Thursday, the life support personnel briefed cadets on chemical warfare and dressed four cadets in various stages of chemical warfare gear including ground and air crew.

Cadets also went to the swimming pool and continued the life

support presentation by showing water survival training techniques.

The life support personnel demonstrated floatation gear, 20-man rafts with signal mirrors and survival equipment, one-man rafts and an outdoor showing of different survival gear.

On Friday, Air Force personnel held security police K-9 demonstrations.

One afternoon cadets ran obstacle courses and had one female cadet, Kendra Chestnut of Myrtle Beach, complete a course that no female cadet had ever completed successfully.

Flights competed with each other in drill competition, which included standard drill and innovative drill techniques.

Friday night was fun night. Each flight section and the cadet staff presented skits. One skit was on a pajama party, and the staff did their own rendition of Top Gun. After the skits, humorous certificates were awarded.

On Saturday, cadets received their certificates: Honor Cadet was Maria Pugia from Myrtle Beach, Honor Flight was Flight A, the female flight, Outstanding Cadet officer was Daron Sigler from Anderson; Most Improved was Floyd Clark from Moncks Corner; and Senior Member was William Haslegrave from Hartwell, Ga.

In all, the encampment proved to be a very worthwhile and exciting time to learn about many aspects of the Civil Air Patrol.

New "Quiet" Propellers Installed on State Plane

Like all equipment, propellers will eventually have to be replaced.

The South Carolina Aeronautics Commission's aircraft recently underwent a propeller replacement on the King Air 200B in Greer and upgraded the crafts with four-bladed propellers.

Th McCauley four-bladed propellers are "full feathering, hydraulically actuated, constant speed propellers," according to information supplied by the McCauley Accessories Division.

Neil Baker, SC Aeronautics Aircraft Maintenance Supervisor

said "the main reason to get these was to make the passengers more comfortable in the plane by less noise, making it easier to talk; and to perform state business easier in the aircraft."

"And also to get back some of the performance lost after putting on the Beech wing straps," said Baker.

The replacement, which usually costs about \$ 30,000, was free to the state Aeronautics Commission since the commission helped McCauley receive the Supplemental Type Certificate for the four bladed prop.

Gary Ward, engine foreman with Stevens Aviation in Greer, said "These propellers aren't experimental anymore. The Aeronautics Commission was instrumental in helping McCauley (Accessory Division) get certification for the propellers."

Ward said that "the quietness of the propellers is the biggest reason" to replace the old three-bladed ones. "You can have normal conversation in the cabin and the cockpit."

"When the governor flies in that plane," said Ward, "he'll notice the difference right away."

Charlotte TCA discussed

Charlotte Douglas," Watson said.

Charlotte Douglas Airport has 376,000 total enplanements annually and 271,000 air carrier operations, according to airport officials.

"It's the mix of controlled and uncontrolled areas in the airspace which cause the mid-air," Watson reiterated.

His presentation also included slides of the TCA which some describe as a three-tiered upside-down wedding cake. The areas begin with the first layer of 10 nautical miles and altitude from surface to 12,500; the second layer is 20 NM with 4,000 to 12,500 and the third layer is 30 NM with 6,000 to 12,500.

Most people at the meeting agreed that the upside-down wedding cake configuration was acceptable and workable, but the use of the so-called "veil" was questioned.

A "veil" is that area in the largest layer of the TCA, 30 NM, which goes from surface to 12,500 MSL, and requires all aircraft in that area to use Mode C transponders.

Balloons and gliders are exempt from using the altitude reporting transponders in the veil, according to Watson.

Many attendees were angry

about the new Mode C rule and its effect on the TCA in the "veil."

One engineer said, "You're going to take a pilot flying a 1929 antique plane and tell him he can't fly any more...You'll have one great museum."

Martin Shuey, vice president of technical affairs for the AOPA, urged all interested to get involved. "This is your first shot to design this TCA the way you want it," he said.

"We have the opportunity," Shuey said, "to do something constructive and cooperative here effecting the Charlotte area."

He also said that when the "NPRM (concerning the Charlotte TCA) comes out you'll have 45 days to respond."

One FAA Southern Region representative, Jim Clark, said "We do have some avenues to get this changed...some very good avenues" so people who want to respond can.

The AOPA vice president said, "If it's a cooperative effort designed by the people, the FAA will listen."

Phil Lofton, manager of the Charlotte Tower said, "the tower is there to service the people," and the

TCA, no matter what the final configuration, should be "a system that will work."

Soaring school operators, Jayne and Frank Reid of Chester requested that the FAA look into their operation and take them into consideration when drawing the boundaries of the TCA.

Frank Reid said, "60% of our soaring days gliders go 6,000 to 8,000 (MSL)."

"We are requesting that you do one of two things:" Reid added, "Make a five NM notch around the north boundary of the airport, or take the last circle (of the TCA) to 8,000 ft."

Shuey announced that the North Carolina Aviation Board is forming an ad hoc committee of all interested people in designing the Charlotte TCA. The committee will formally present their design proposals to the FAA for consideration.

Comments on the design of the Charlotte TCA will be taken until August 15, 1988 to the FAA, Airspace Procedures Branch, ASO — 530, P.O. Box 20636, Atlanta, GA.

According to FAA officials, the TCA will be implemented in August 1989.

FYI From the FAA

There are Always Questions on TCA's

The following are excerpts from a Flight Standards District Office Accident Prevention Program regarding TCA flying.

Why is a TCA being established at CLT? When will it occur?

1. Continually increasing volume of both airline and general aviation traffic.
2. The need to segregate higher speed jet traffic from slower speed general aviation traffic.
3. Implementation date of August 1989.

What does the CLT TCA look like?

It is shaped like an inverted wedding cake.

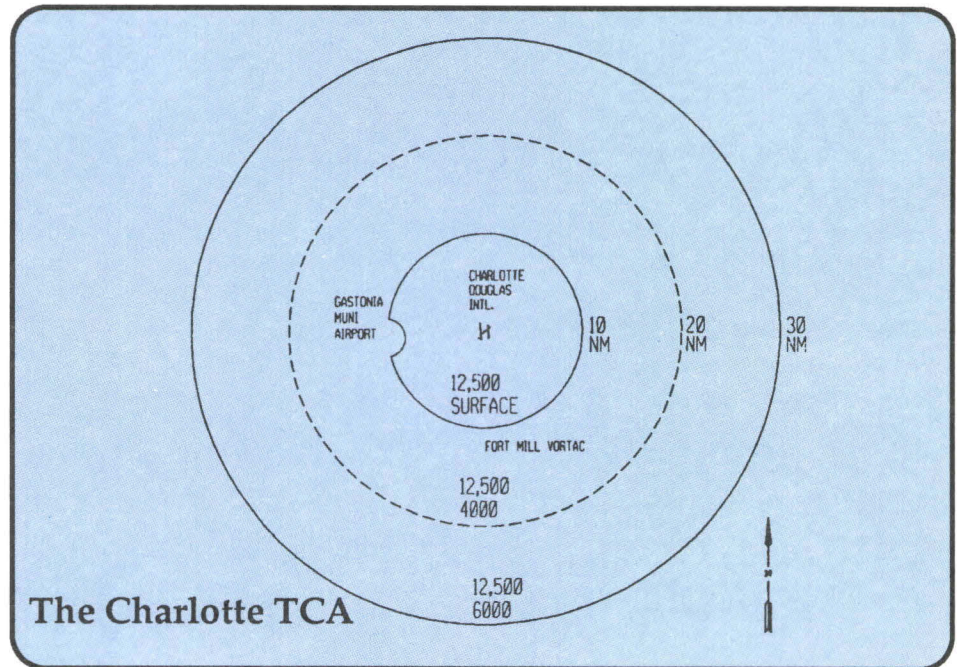
There will be three tiers.

- a. From surface to 12,500 MSL, 0-10NM of CLT VOR.
- b. From 4,000 to 12,500 MSL, 10NM-20NM.
- c. From 6,000 to 12,500 MSL, 20NM-30NM.

Will Mode C transponder be required within a 30 mile radius, from surface to 12,500 MSL?

Undetermined. It appears that the original NPRM, calling for nationwide standardization of TCA airspace, and Mode C transponders within a 30 mile radius of the TCA airport will expire with no further action.

The latest NPRM proposes to require Mode C transponders within 40 miles of a Radar Approach Control airport regardless of TCA airspace, as well as, lowering the PCA to 6,000 which would also require Mode C transponders. Is this likely to occur, and what is the reasoning for such tight requirements?



The Charlotte TCA

The likelihood of these rules coming to pass is undetermined at this time. At this point, these are only proposals.

The following are TCA requirements:

Group I

1. A two-way radio capable of communicating with ATC on appropriate frequencies.
2. A VOR or TACAN receiver, except for helicopters.
3. A 4096 code transponder with Mode C.
4. A private pilot certificate or better, to land or take-off from an airport within the TCA.
5. Unless authorized by ATC, all with large turbine powered aircraft must operate at or above TCA floor while operating to and from the primary airport.
6. No person may operate an aircraft in the airspace underlying airspace of more than 200 knots.

Group II

1. A two-way radio capable of communicating with ATC on appropriate frequencies.

2. A VOR or TACAN receiver, except for helicopters.

3. A 4096 code transponder with Mode C.

4. Unless authorized by ATC, all large turbine powered aircraft must operate at or above the TCA floor while operating to and from the primary airport.

5. No person may operate an aircraft in the airspace underlying a TCA, at an indicated airspeed of more than 200 knots.

These procedures are outlined in the current Airman's Information Manual. There may be a standardization of all TCA's into one group. This is still undetermined. If it happens, then the above requirements for both groups would be combined in some fashion to create one group.

Dave Anderson is the Flight Safety Specialist for the Columbia Flight Standards District Office. He can be reached by calling (803) 765-5931 or writing at Columbia FSDO, 2819 Aviation Way, West Columbia, SC 29169.



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Inside Palmetto Aviation

- Aircraft Registration Law Repealed
- Over \$230,000 Approved for Airport Projects
- He's a Man Happy With Helio Couriers

... and much, much more!

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AUG 1 5 1988

STATE DOCUMENTS

Get Your 1988/89 S.C. Aeronautical Chart!

The 1988/89 state aeronautical charts have arrived in Columbia, and now the slow process of getting the maps to all who need them begins.

So far, commission staffers have distributed charts to Eagle Aviation, Columbia Owens Downtown, Laurens County Airport, Pickens County, Fairfield County, Bryant Field, Georgetown County, Greenville Downtown, Greer Airport, Spartanburg Downtown, Clemson, Anderson, Newberry, Monck's Corner, Hawthorne Aviation, Williamsburg County, Char-

leston International and East Cooper Airport.

We are trying to get the charts out to the airports as fast as possible, so bear with us.

If you need a chart please go to your county airport and pick one up there, if possible.

If you have sent a written request to us, you should have received your chart by mail.

Of course, when a new chart arrives, unfortunately there may be errors.

In this year's chart, an error was made on the back of the map in the airport directory section.

Pickens County Airport was inadvertently listed as not being attended. However, we know for a fact that the airport is attended from 0700 to 1900 every day.

We are sorry for this error in our aeronautical chart and hope it does not cause any confusion when you fly in the vicinity of the Pickens Airport.

If you find any other errors in the aeronautical chart, especially on the map itself, please call the the SC Aeronautics Commission Public Information Office as soon as possible at 1-800-922-0574 or (803) 739-5423.

This publication is printed and distributed by the South Carolina Aeronautics Commission in the interest of aviation safety and to foster growth of responsible aviation in the state. The viewpoints expressed in articles credited to specific sources are presented as the viewpoints of those writers and do not necessarily reflect the opinion of the South Carolina Aeronautics Commission.